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10/527,956	03/15/2005	Jill MacDonald Boyce	PU020426	7058

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Robert D. Shedd, Patent Operations
THOMSON Licensing LLC
P.O. Box 5312
Princeton, NJ 08543-5312

EXAMINER

TEKLE, DANIEL T

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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,956	Applicant(s) MACDONALD BOYCE ET AL.	
	Examiner DANIEL TEKLE	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed June 4, 2010 have been fully considered but they are not persuasive.

Applicant argument regarding claim 1 and 14 limitation, the examiner respectfully disagrees. Applicant argument regarding claim 1 and 14 limitation and examiner response as highlighted and the cited paragraph on non-final office action (paragraph 294-295 and 0043) step by step reproduce below.

1. Regarding claim 1 limitation: “identifying **(scrambling key identifier calculation unit “paragraph 294 line 6”)** an end point of at least one of said plurality of segments **(TS packets header interpretation unit 611 reads the value of continuity counter “paragraph 294 lines 4-5”: the cc increments one by one from zero to fifteen to determine TS packets “paragraph 295 lines 4-5”)** by counting a number of data packets that are decoded for playback **(Ts packet header interpretation unit “paragraph 294 lines 4-5”, continuity counter “paragraph 29 line 5” and scrambling key identifier “paragraph 294 line 6”)**.”.

2. Regarding claim 14 limitation: “broadcasting one or more earlier ones of said plurality of segments **(a broadcast apparatus “paragraph 43 lines 1-2”.....scramble processing unit for scrambling a predetermined unit of content “paragraph 28 lines 2-3”)**, that chronologically are intended to precede later segments in said program, more frequently than said later segments **(“a predetermined unit of content” is a broader expression of an order to this limitation “paragraph 295 lines 4-5”),**”

35 U.S.C. 112, sixth paragraph

MPEP 2181 discloses that a claim limitation will be presumed to invoke 35 U.S.C. 112, sixth paragraph if it meets the following 3-prong analysis: (A) the claim limitations must use the phrase "means for" or "step for;" (B) the "means for" or "step for" must be modified by functional language; (C) the phrase "means for" or "step for" must not be modified by sufficient structure, material, or acts for achieving the specific function.

Regarding Claim 16: The means plus function language used in claim 16 indicates that applicant intends to invoke 35 U.S.C. 112 paragraph six. Where means plus function language is used, claim limitations are interpreted to read on only the corresponding structure disclosed in the specification and equivalents thereof. The disclosed structure used for the "means for demultiplexing a plurality of multiplexed program segments, each having a unique packet identifier and each corresponding to a fractional part of an entire program " consider to read on (transport demux 304 of Figure 3 of Applicant's specification as indicated in [page 5 lines 16-21]); "means for concurrently storing two or more of said plurality of program segments during a predetermined time period" consider to read on (storage 308 of Figure 3 of Applicant's specification as indicated in [page 4 line 31 to page 5 line 11]); "means for receiving and storing a key table containing packet count information corresponding to a number of data packets contained in at least one said program segments" consider to read on (packet count information Figure 2 of Applicant's specification as indicated in [page 3 lines 26-34 and page 6 line 30 to page 7 line 6]).

The prior art element is a structural equivalent of the corresponding element disclosed in the specification. That is, the prior art element performs the function specified in the claim in substantially the same manner as the function is performed by

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the corresponding element described in the specification. Therefore, the prior art element is an equivalent.

Regarding Claim 18: The means plus function language used in claim 18 indicates that applicant intends to invoke 35 U.S.C. 112 paragraph six. Where means plus function language is used, claim limitations are interpreted to read on only the corresponding structure disclosed in the specification and equivalents thereof. The disclosed structure used for the “means for identifying at least one of a beginning and an end of one or more of said plurality of program segments using said packet count information” consider to read on (segment A, B, C, or D. Figure 4 of Applicant’s specification as indicated in [page 6 lines 3-11]).

The prior art element is a structural equivalent of the corresponding element disclosed in the specification. That is, the prior art element performs the function specified in the claim in substantially the same manner as the function is performed by the corresponding element described in the specification. Therefore, the prior art element is an equivalent.

Regarding Claim 19: The means plus function language used in claim 19 indicates that applicant intends to invoke 35 U.S.C. 112 paragraph six. Where means plus function language is used, claim limitations are interpreted to read on only the corresponding structure disclosed in the specification and equivalents thereof. The disclosed structure used for the “means for determining, based on said packet count information, when a complete set of program segment data packets has been received” consider to read on

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(when the controller begins recording a segment, it counts the number of packets [page 7 line 41 to page 8 line 9]).

The prior art element is a structural equivalent of the corresponding element disclosed in the specification. That is, the prior art element performs the function specified in the claim in substantially the same manner as the function is performed by the corresponding element described in the specification. Therefore, the prior art element is an equivalent.

Regarding Claim 20: The means plus function language used in claim 20 indicates that applicant intends to invoke 35 U.S.C. 112 paragraph six. Where means plus function language is used, claim limitations are interpreted to read on only the corresponding structure disclosed in the specification and equivalents thereof. The disclosed structure used for the “means for determining a playback order of said plurality of program segments based on said packet count information” consider to read on “the VoD player controller 306 Figure 3 of Applicant's specification as indicated [page 5 line 30 to page 6 line 2]).

The prior art element is a structural equivalent of the corresponding element disclosed in the specification. That is, the prior art element performs the function specified in the claim in substantially the same manner as the function is performed by the corresponding element described in the specification. Therefore, the prior art element is an equivalent.

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Regarding Claim 21: The means plus function language used in claim 21 indicates that applicant intends to invoke 35 U.S.C. 112 paragraph six. Where means plus function language is used, claim limitations are interpreted to read on only the corresponding structure disclosed in the specification and equivalents thereof. The disclosed structure used for the “means for playing back in order and without interruption a first and all subsequent ones of said plurality of program segments” consider to read on (the VoD player controller 306 Figure 3 of Applicant's specification as indicated [page 5 line 30 to page 6 line 2]).

The prior art element is a structural equivalent of the corresponding element disclosed in the specification. That is, the prior art element performs the function specified in the claim in substantially the same manner as the function is performed by the corresponding element described in the specification. Therefore, the prior art element is an equivalent.

Regarding Claim 22: The means plus function language used in claim 22 indicates that applicant intends to invoke 35 U.S.C. 112 paragraph six. Where means plus function language is used, claim limitations are interpreted to read on only the corresponding structure disclosed in the specification and equivalents thereof. The disclosed structure used for the “means for receiving and storing at least a first program segment corresponding to a beginning portion of said entire program on at least one of a different transponder channel and at a different time as compared to a remainder of said program segments” consider to read on (element 408, 410 and 412 Figure 4 of Applicant's specification as indicated [page 5 lines 23-29]).

The prior art element is a structural equivalent of the corresponding element disclosed in the specification. That is, the prior art element performs the function specified in the claim in substantially the same manner as the function is performed by the corresponding element described in the specification. Therefore, the prior art element is an equivalent.

Regarding Claim 23: The means plus function language used in claim 23 indicates that applicant intends to invoke 35 U.S.C. 112 paragraph six. Where means plus function language is used, claim limitations are interpreted to read on only the corresponding structure disclosed in the specification and equivalents thereof. The disclosed structure used for the “means for defining a plurality of program segments, each corresponding to a fractional part of an entire program” consider to read on (element 408, 410 and 412 of Figure 4 of Applicant's specification as indicated [page 5 lines 23-29]); “means for multiplexed transmitting at least two of said plurality of program segments concurrently, with each program segment separately identifiable based upon a unique packet identifier” consider to read on (Applicant's specification as indicated [page 4 lines 27-29]); “means for broadcasting one or more earlier ones of said plurality of segments, that chronologically are intended to precede later segments in said program, more frequently than said later segments” consider to read on (playback stream 400 Figure 4 of Applicant's specification as indicated [page 4 line 31 to page 5 line 11]).

The prior art element is a structural equivalent of the corresponding element disclosed in the specification. That is, the prior art element performs the function specified in the claim in substantially the same manner as the function is performed by

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the corresponding element described in the specification. Therefore, the prior art element is an equivalent.

Regarding Claim 24: The means plus function language used in claim 14 indicates that applicant intends to invoke 35 U.S.C. 112 paragraph six. Where means plus function language is used, claim limitations are interpreted to read on only the corresponding structure disclosed in the specification and equivalents thereof. The disclosed structure used for the “means for broadcasting with at least one of said plurality of program segment a key table containing packet count information corresponding to a number of data packets contained in at least one said program segments” consider to read on (packet count information Figure 2 of Applicant’s specification as indicated in [page 3 lines 26-34 and page 6 line 30 to page 7 line 6]).

The prior art element is a structural equivalent of the corresponding element disclosed in the specification. That is, the prior art element performs the function specified in the claim in substantially the same manner as the function is performed by the corresponding element described in the specification. Therefore, the prior art element is an equivalent.

Regarding Claim 25: The means plus function language used in claim 25 indicates that applicant intends to invoke 35 U.S.C. 112 paragraph six. Where means plus function language is used, claim limitations are interpreted to read on only the corresponding structure disclosed in the specification and equivalents thereof. The disclosed structure used for the “means for transmitting a segment packet count data for one or more of said plurality of program segments, said SPC data identifying a position within a

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program segment of a transmitted packet containing program segment data" consider to read on (transmission network 110 Figure 1 of Applicant's specification as indicated [page 6 lines 12-24]).

The prior art element is a structural equivalent of the corresponding element disclosed in the specification. That is, the prior art element performs the function specified in the claim in substantially the same manner as the function is performed by the corresponding element described in the specification. Therefore, the prior art element is an equivalent.

Regarding Claim 27: The means plus function language used in claim 27 indicates that applicant intends to invoke 35 U.S.C. 112 paragraph six. Where means plus function language is used, claim limitations are interpreted to read on only the corresponding structure disclosed in the specification and equivalents thereof. The disclosed structure used for the "means for transmitting at least a first program segment corresponding to a beginning portion of said entire program on at least one of e different transponder channel and at a different time as compared to a remainder of said program segments" consider to read on (transmission network 110 Figure 1 and element 408, 410 and 412 Figure 4 of Applicant's specification as indicated [page 5 lines 23-29]).

The prior art element is a structural equivalent of the corresponding element disclosed in the specification. That is, the prior art element performs the function specified in the claim in substantially the same manner as the function is performed by the corresponding element described in the specification. Therefore, the prior art element is an equivalent.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-15 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent and recent Federal Circuit decisions indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claims recite a series of steps or acts to be performed, the claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example, a process providing video on demand playback comprising receiving and identifying steps is of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

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351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-16 and 18-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukami et al. (US 2002/0080971)

Regarding Claim 1: Fukami et al. discloses a method for providing video on demand playback, comprising: receiving at a VoD **(transmitter scrambles content including audio and visual data of a pay broadcast program to be broadcast one each channel, where content per predetermined unit is scrambled with a scrambling key different for each predetermined unit of contents “paragraph 0006) player (fig. 8 element 205) a plurality of program segments (paragraph 0021 and 28 and fig. 6 “TS packet and KS scrambling as segment program), each corresponding to a fractional part of an entire program (paragraph 0013); receiving at VoD player a key table (paragraph 0020 counts the number of TS packets from the leading TS packet, and can easily extract a descrambling key from the list) containing packet count information corresponding to the number of data packets contained in at least one of program segments (paragraph 0020-0021); and identifying an end point of at least one of said plurality of program segments by counting a number of data packets that are decoded for playback (paragraph 0294-0295).**

Regarding Claim 2: Fukami et al. discloses a method according to claim 1 further comprising the step of counting a number of data packets relative to the beginning of a program segment **(paragraph 0278).**

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Regarding Claim 3: Fukami et al. discloses a method according to claim 1 further comprising the step of associating at least one program segment with a unique program identifier (PID) based on information contained in key table **(paragraph 0030)**.

Regarding Claim 4: Fukami et al. discloses a method according to claim 1 further comprising the step of receiving and recording at said VoD player at least part of one of said plurality of program segments during the playback by said VoD player of a previous one of said plurality of program segments **(paragraph 10 and 14-15)**.

Regarding Claim 5: Fukami et al. discloses the method according to claim 1, further comprising the step of beginning a playback of at least one of plurality of program segments responsive to a determination that a preceding one of plurality of segments in program is approaching end point **(paragraph 020)**.

Regarding Claim 6: Fukami et al. discloses a method according to claim 1 further comprising the step of receiving at said VoD player a segment packet count data for one or more of said plurality of program segments, said SPC data identifying a position **(paragraph 30: packet specifying information is one of Continuity Counter (CC))** within a program segment of a received packet containing program segment data **(paragraph 30, listed element of packet specifying information)**.

Regarding Claim 7: Fukami et al. discloses a method according to claim 6, further comprising the SPC data is private data in the adaptation field of the MPEG-2 transport **(paragraph 310)**.

Regarding Claim 8: Fukami et al. discloses a method according to claim 6 further comprising the step of monitoring said SPC field of data packets received at said VoD player (**paragraph 20**).

Regarding Claim 9: Fukami et al. discloses a method according to claim 8 further comprising the step of comparing said SPC field data to a number of data packets contained in at least one of said plurality of program segments to identify the occurrence of missing packets (**fig. 10 elements S12 and S13**).

Regarding Claim 10: Fukami et al. discloses a method according to claim 8 further comprising the step of discarding packets received by said VoD player that have SPC field data values corresponding to packets that have already been stored by said VoD player (**fig. 43 element 1512**).

Regarding Claim 11: Fukami et al. discloses a method according to claim 8 further comprising the step of counting a number of data packets received by said VoD player for at least one of said plurality of program segments (**fig. 46**).

Regarding Claim 12: Fukami et al. discloses a method according to claim 11 further comprising the step of determining that a segment has been completely received when a total number of packets received for a segment is equal to a total number of packets for segment as identified by said SPC data in said key table (**fig. 13**).

Regarding Claim 13: Fukami et al. discloses a method according to claim 12 further comprising the step of determining an end of a segment based upon a discontinuity in at least one of a system clock reference field and a presentation time stamp field (**fig. 13**).

Regarding Claim 14: Fukami et al. discloses a method for providing video on demand playback, comprising: defining a plurality of program segments, each corresponding to a fractional part of an entire program (**paragraph 0013 and 0024**); transmitting at least two of said plurality of program segments concurrently, with each program segment separately identifiable based upon a unique packet identifier (**paragraph 0020-0021**); and broadcasting one or more earlier ones of said plurality of segments, that chronologically are intended to precede later segments in program, more frequently than later segments (**paragraph 0027-0028 and 0043**).

Regarding Claim 15: Fukami et al. discloses a method according to claim 14 further comprising the step of broadcasting with at least one of said plurality of program segments a key table containing packet count information corresponding to the number of data packets contained in at least one of said program segments (**paragraph 0030**).

Regarding Claim 16: Fukami et al. discloses a video on demand player comprising: demultiplexor means for demultiplexing a plurality of multiplexed program segments, each having a unique packet identifier and each corresponding to a fractional part of an entire program (**paragraph 0020-0021**); storage means for concurrently storing two or more of said plurality of program segments during a predetermined time period (**paragraph 0020**) and means for receiving and storing a key table containing packet count information corresponding to a number of data packets contained in at least one of program segments_(**paragraph 0020-0021**).

Regarding Claim 18: Arsenault et al. discloses a VoD player according to claim 16 further comprising means for identifying at least one of a beginning and an end of one or more of plurality of program segments using said packet count information (**fig. 46**).

Regarding Claim 19: Fukami et al. discloses a VoD player according to claim 16 further comprising means for determining, based on said packet count information, when a complete set of program segment data packets has been received (**paragraph 0020**).

Regarding Claim 20: Fukami et al. discloses a VoD player according to claim 16 further comprising means for determining a playback order of said plurality of program segments based on said packet count information (**paragraph 0020**).

Regarding Claim 21: Fukami et al. discloses a VoD player according to claim 20 further comprising means for playing back in order and without interruption a first and all subsequent ones of plurality of program segments (**paragraph 0020**).

Regarding Claim 22: Fukami et al. discloses a VoD player according to claim 16 further comprising means for receiving and storing at least a first program segment corresponding to a beginning portion of said entire program on at least one of a different transponder channel and at a different time as compared to a remainder of said program segments (**paragraph 0020**).

Regarding Claim 23-24: Claim 23-24 are reject for same subject matter as claims 14-15 respectively.

Regarding Claim 25: Claim 25 is reject for same subject matter as claim 6.

Regarding Claim 26: Claim 27 is reject for same subject matter as claim 7.

Regarding Claim 27: Claim 27 is reject for same subject matter as claim 22.

Regarding Claim 28: Fukami et al. discloses a method according to claim 1, wherein the end point is identified when a count of a number of data packets that are decoded for playback and that correspond to the at least one of said plurality of programs equals the packet count information for the at least one of said program segments (**fig. 46**).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL TEKLE whose telephone number is (571)270-

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1117. The examiner can normally be reached on 7:30am to 5:00pm M-R and 7:30-4:00
Every other Friday..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter-Anthony Pappas can be reached on 571-272-7646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel Tekle/
Examiner, Art Unit 2621

/Peter-Anthony Pappas/
Supervisory Patent Examiner, Art Unit 2621